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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,286

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David John Michael Gibson

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EXAMINER

BAYOU, AMENE SETEGNE

ART UNIT

PAPER NUMBER

4147

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,286	<b>Applicant(s)</b> GIBSON ET AL.	
	<b>Examiner</b> AMENE S. BAYOU	<b>Art Unit</b> 4147	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23, 25 and 26 is/are allowed.
- 6) ☒ Claim(s) 24, 27-32 and 41-44 is/are rejected.
- 7) ☒ Claim(s) 17 and 33-40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/09/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 24,25 and 27 are objected to because of the following informalities:  
Appropriate correction is required.
2. Claims 24,25 and 27 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, claim 24 which is dependent on claims 2 and 23 and claim 27 which is dependent on claims 26 and 10 have not been further treated on the merits. Claim 25 is also objected since it is dependent on claim 24. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112  
that forms the basis for the rejections under this section made in this Office action:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claim 17 is rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

5. In re claim 17, the claim contains the phrase "longer than the teeth of the gear".

According to the specification there are two types of gears, the first being gear of rotor and the other being the gear of the transmission mechanism. Thus the phrase makes the claim to be indefinite. Appropriate action required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 28-32, 41-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Iles (US patent number 3674383).

8. In re claim 28, Iles '383 discloses a peristaltic pump including:

- A peristaltic pump head ,in figure 1 and 5, having a tapered pump rotor (15,17) which is rotatable about an axis of rotation, and a tube holder (19 and 20) having a recess for receipt of the tapered end of the rotor, the tube holder having a tube race configured for receipt of a tube (24) for pumping of a fluid by movement of the rotor, the tube race comprising a plurality of separate race parts around the recess defined by a plurality of apertures (23,25) or recesses such that the tube (24) can exit and re-enter the tube race .

9. In re claim 29, Iles '383 discloses a peristaltic pump including:

Art Unit: 3746

- The combination wherein the tube (24) is insertable into the tube race without separating the tube holder (20) from the pump head (15), in figure 1.

10. In re claim 30, Iles '383 discloses a peristaltic pump including:

- The combination wherein the tube holder (19) and pump head (15) are movable from an operable configuration in which the rotor (17) is located in the recess of the tube holder and configured to pump fluid through a tube to a loading configuration in which the tube may be loaded into the tube race, in figure 1.

11. In re claim 31, Iles '383 discloses a peristaltic pump including:

- The combination wherein the tube holder (19) and pump head (15) are fully separable in figure 1.

12. In re claim 32, Iles '383 discloses a peristaltic pump including:

- The combination in figure 1 and 5, wherein the tube holder (19,20), has a housing (19), a first tube race part around one part of the recess defined by a first tube inlet aperture and a first tube outlet aperture (23), and a second tube race part around another part of the recess defined by a second tube inlet aperture and a second tube outlet aperture (25), such that movement of a tube threaded therethrough in the axial direction of the rotor is minimized or prevented by the apertures.

13. In re claim 41, Iles '383 discloses a peristaltic pump including:

- The combination, wherein the tapered part of the rotor (15, 17) is substantially conical or frustoconical, and has a plurality of rollers (17) rotatably mounted

thereon which are configured to occlude the tube in use, in figure 1 and column 3, lines 40-45.

14. In re claim 42, Iles '383 discloses a peristaltic pump including:

- The combination wherein the rollers (17) are substantially frustoconical in configuration, with their tapered ends directed towards the tapered end of the rotor, in figure 1.

15. In re claim 43, Iles '383 discloses a peristaltic pump including:

- The combination wherein the rollers (17) are mounted for rotation with axes which taper toward the tapered end of the rotor, in figure 1.

16. In re claim 44, Iles '383 discloses a peristaltic pump including:

- The combination wherein the rotor comprises a main body part (17) and a head part (15), with the rollers (17) mounted for rotation in a recess or recesses between the main body part and the head part, in figure 1 and 5.

***Allowable Subject Matter***

17. The following is an examiner's statement of reasons for allowance per MPEP 1302

18. Claims 1-22 and 23,25,26, in the application are deemed to be directed to a non-obvious Improvement over Iles '383.

19. Claim 1 comprises a peristaltic pump having a rotor which directly squeezes a tube race which in turn indirectly squeezes the tube in the tube race. While Iles '383 discloses a peristaltic pump with tube guides it doesn't however disclose a tube race placed between the rotor and the tube to indirectly pump the fluid. Thus In the

Art Unit: 3746

examiner's opinion, it would not have been obvious to a person of ordinary skill in the art first to introduce a plastic tube race or sleeve to indirectly pump the fluid by the rotor action.

20. Claim 23 is drawn to the same invention as discussed in (3) above but is focused on the method of loading the tube holder based on the same apparatus disclosed in claim 1 and thus the same argument used in (3) above is used as the reason for allowance.

21. Claim 25 dependent on claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims

22. Claims 33-40 dependent on claim 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Arimond (US patent number 4705464) discloses a medicine pump. Raible et al. (US patent number 4954055) disclose variable roller peristaltic pump. Weber et al (US patent number 4545744) disclose a peristaltically operating roller pump

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amene S. Bayou whose telephone number is 571-270-3214. The examiner can normally be reached on Monday-Thursday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on 571-272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/  
Supervisory Patent Examiner, Art  
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